



# **Maryland HIV/AIDS Quarterly Update**

Second Quarter 2017
Data reported through June 30, 2017

Center for HIV Surveillance, Epidemiology and Evaluation Infectious Disease Prevention and Health Services Bureau Prevention and Health Promotion Administration Maryland Department of Health https://phpa.health.maryland.gov/OIDEOR/CHSE/pages/Home.aspx 1-800-358-9001

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# Section I – Background Information

#### **HIV/AIDS** Reporting Requirements

The Maryland HIV/AIDS Reporting Act of 2007 went into effect on April 24, 2007. The law expanded HIV/AIDS reporting and required that HIV cases be reported by name. The following highlights the reporting requirements of Health-General Articles 18-201.1, 18-202.1, and 18-205 of the Annotated Code of Maryland, as specified in COMAR 10.18.02.

- Physicians are required to report patients in their care with diagnoses of HIV or AIDS immediately to the Local Health Department where the physician's office is located by mailing DHMH Form 1140. Reports are also accepted by phone.
- Physicians are required to report infants born to HIV positive mothers within 48 hours to the Maryland Department of Health by mailing DHMH Form 1140. Reports are also accepted by phone.
- Clinical and infection control practitioners in hospitals, nursing homes, hospice facilities, medical clinics in
  correctional facilities, inpatient psychiatric facilities, and inpatient drug rehabilitation facilities are required to report
  patients in the care of the institution with diagnoses of HIV or AIDS within 48 hours to the Local Health
  Department where the institution is located by mailing DHMH Form 1140. Reports are also accepted by phone.
   Facilities with large volumes are encouraged to contact the Maryland Department of Health to establish electronic
  reporting.
- Laboratory directors are required to report patients with laboratory results indicating HIV infection (e.g., positive
  confirmatory HIV diagnostic tests, all CD4 immunological tests, all HIV viral load tests, and all HIV genotype and
  phenotype tests) within 48 hours to the Local Health Department where the laboratory is located, or if out of state
  to the Maryland Department of Health, by mailing DHMH Form 4492. Laboratories are encouraged to contact the
  Maryland Department of Health to establish electronic reporting.

Reporting forms and instructions are available on our website: https://phpa.health.maryland.gov/OIDEOR/CHSE/Pages/reporting-material.aspx

### For Assistance with HIV/AIDS Reporting

For assistance with reporting, including establishment of routine, electronic, or other alternate methods of reporting to the Health Department, please contact the Center for HIV Surveillance, Epidemiology and Evaluation in the Maryland Department of Health at 410-767-5227.

#### Limitations in the HIV/AIDS Data

This epidemiological profile only contains data for HIV and AIDS cases that have been diagnosed by a health care provider, were reported to the health department by name, and were residents of Maryland at the time of diagnosis. Nationally, it has been estimated that 13.0% of people living with HIV infection are undiagnosed. In Maryland, it is estimated that 15.3% of people living with HIV infection are undiagnosed. In addition, despite a massive effort during which over 17,000 HIV cases were reported after the Maryland HIV reporting law changed on April 24, 2007, not all diagnosed HIV cases previously reported by Maryland's code-based identifier were located and re-reported by name. Many of the re-reported HIV cases were identified by a recent diagnosis and not by their earliest diagnosis, resulting in an under-reporting of HIV diagnoses before 2001 and an over-reporting of HIV diagnoses from 2001 to 2008. Caution should be exercised in using the number of living HIV cases without AIDS and in interpreting trends in the number of reported HIV diagnoses. Furthermore, laboratory data are only available for cases receiving medical care, usually only at facilities in Maryland, and only includes test results that have been reported to the health department.

In addition to providing estimates of prevalent cases by residence at HIV diagnosis, this epidemiological profile includes estimates for HIV cases whose current residence as of 12/31/2016 was in Maryland. Current residence data are restricted to cases for which there is a case report form or laboratory test reported between 1/1/2009 and 12/31/2016. Restricting

address data to recent years presents the most accurate data available and helps to account for cases that may have moved out of state whose data would no longer be reported in Maryland. However, current residence data excludes cases that may be residents of Maryland but have fallen out of care during the most recent seven years.

Please note that data reported in the quarterly reports may not match data reported in the annual epidemiological profiles due to differences in reporting periods. In addition, not all data has been geocoded in the quarterly reports and therefore is preliminary. Geocoding is the process of assigning geographic identifiers to map features and data records. Addresses are standard data elements required by law and submitted as part of reporting requirements; however, the information may be incomplete which then requires a geocoding process to improve the quality of data. This process is fully completed on the end-of-the-year data set.

#### Stages of a Case of HIV/AIDS

Untreated HIV disease progresses from HIV infection to AIDS to death. These are biological events that occur whether or not a person receives any medical care. For example, a person can be HIV infected but never have an HIV test and so they do not have an HIV diagnosis. A medical provider diagnoses that these biological events have occurred and records them as a medical event. The law requires medical providers to report these medical events to the Health Department, thereby creating a surveillance event.

Time Point	Biological Event	Medical Event	Surveillance Event
1	HIV Infection		
2		HIV Diagnosis	
3			HIV Report
4	AIDS Conditions		
5		AIDS Diagnosis	
6			AIDS Report
7	Death		
8		Death Diagnosis	
9			Death Report

For surveillance purposes, a case of HIV/AIDS can only move through time in one direction, from HIV infection to death report [from time point 1 to time point 9], but may skip over individual stages. Events can occur simultaneously, but usually there is a time lag between them. The time lag between events can be measured in days, months, or years.

For example, the time between HIV infection [time point 1] and the test that diagnoses HIV [time point 2] may be several years, and it may then take several days for the laboratory and physician to report the diagnosis to the health department [time point 3]. In a second example, a person with diagnosed and reported HIV infection [time point 3] may die [time point 7] without developing AIDS, thereby skipping the three AIDS events (conditions, diagnosis, and report [time points 4, 5 and 6]). And in a third example, a person with undiagnosed HIV infection [time point 1] may become sick, enter the hospital, and die [time point 7] of what is later determined to be AIDS. In that situation, HIV diagnosis [time point 2], AIDS diagnosis [time point 5], and death diagnosis [time point 8] would all occur at the same time, and that would have been many years after the initial HIV infection [time point 1].

## Changes in Case Terminology

The terminology for HIV and AIDS cases was changed from earlier epidemiological profiles to be more precise, with Reported Diagnoses replacing Incidence and Living Cases replacing Prevalence. Incidence is a measure of the number of new events (such as HIV infections) in a population during a period of time. Prevalence is a measure of the number of people living with a condition (such as HIV) in a population at a certain time. Prevalence includes both new and old diagnosed cases as well as undiagnosed infections. For HIV, Incidence and Prevalence cannot be directly measured and must be estimated using statistical methods. The HIV surveillance system is able to provide the actual number of diagnoses and deaths that are reported in the population.

For this epidemiological profile, the reports received through a certain time (a quarter-year) are used to generate the number of diagnoses during the prior years. This six-month lag allows for delays in reporting and time to complete investigations. For example, the Reported HIV Diagnoses for 1/01/2016-12/31/2016 are the total of the reported HIV cases with or without an AIDS diagnosis, diagnosed with HIV during 1/01/2016-12/31/2016, as reported by name through 6/30/2017.

To calculate the number of Living Cases we count up all of the Reported Diagnoses from the beginning of the epidemic (all the Reported HIV Diagnoses each year) and subtract all of the Reported Deaths. For example, the Total Living HIV Cases on 12/31/2016 are the total of the reported HIV Cases with or without an AIDS diagnosis and not reported to have died as of 6/30/2017 as reported by name through 6/30/2017.

#### **Laboratory Data**

CD4+ T-lymphocyte tests are measures of a person's immune system function. An HIV infected adult is considered to have AIDS if they have less than 200 CD4 cells per microliter of blood. Viral load (VL) tests are measures of the amount of HIV in a person's body. The goal of HIV treatment is to have a very low number of copies of virus per milliliter of blood, below what the test can measure, which is called an undetectable level. Treatment recommendations are that a person in HIV medical care should have their CD4 and VL levels measured regularly, at least once per year. We use the presence of these lab tests as an indicator that someone has been "linked to care" initially after diagnosis or in following years that they remain "in care".

#### Sources of Data

Information on HIV and AIDS diagnoses, including residence at diagnosis, age, race/ethnicity, sex at birth, country of birth, vital status, HIV exposure category, and CD4 and HIV viral load test results are from the Maryland Department of Health's Enhanced HIV/AIDS Reporting System (eHARS), June 30, 2017.

Population data by sex, age, and race/ethnicity are from the July 1, 2016 U.S. Census Estimates. Due to estimation limitations, some population totals may not equal the sum of its components.

#### **Tabulation of Column Totals**

Figures in tables and generally in the text have been rounded. Discrepancies in tables between totals and sums of components are due to rounding.

#### **Data Suppression**

In order to protect the confidentiality of reported HIV cases, data are suppressed in the following instances:

- Data describing a demographic group or geographic area (e.g. ZIP code) with a population less than 1,000 people.
- All clinical/laboratory information if it is describing less than 5 cases.
- All exposure/risk information if it is describing less than 5 cases, except in the case of "other" exposure.
- If any cell is suppressed, additional cells are also suppressed as necessary to prevent back calculation of the suppressed cell(s).

### Glossary of Terms

**Adult/Adolescent Living HIV Cases with AIDS:** Reported HIV diagnoses, age 13 years or older at HIV diagnosis, with an AIDS diagnosis, and not reported to have died as of 6/30/2017.

**Adult/Adolescent Living HIV Cases without AIDS:** Reported HIV diagnoses, age 13 years or older at HIV diagnosis, without an AIDS diagnosis, and not reported to have died as of 6/30/2017.

**Adult/Adolescent Reported AIDS Diagnoses:** Reported HIV diagnoses, age 13 years or older at HIV diagnosis, with an initial AIDS diagnosis during the specified year.

**Adult/Adolescent Reported HIV Diagnoses:** Reported HIV diagnoses, age 13 years or older at HIV diagnosis, with an initial HIV diagnosis during the specified year.

**Adult/Adolescent Total Living HIV Cases:** Reported HIV diagnoses, age 13 years or older at HIV diagnosis, with or without an AIDS diagnosis, and not reported to have died as of 6/30/2017.

CD4 Result Distribution (<200, 200-349, 350-499, 500+): Percent of cases with a CD4 test distributed by their CD4 count results (cells per microliter).

**Current Residence:** Jurisdiction of residence from the most recent laboratory test or case report between 1/1/2009-12/31/2016.

First CD4 Test Result: First reported CD4 test result obtained within 12 months following initial HIV diagnosis.

**Jurisdiction of Current Residence**: Jurisdiction of residence from the most recent laboratory test or case report between 1/1/2009-12/31/2016.

Jurisdiction of Residence at AIDS Diagnosis: Jurisdiction of residence at time of initial AIDS diagnosis.

**Jurisdiction of Residence at Diagnosis:** Jurisdiction of residence at the later of time of initial HIV diagnosis or time of initial AIDS diagnosis.

Jurisdiction of Residence at HIV Diagnosis: Jurisdiction of residence at time of initial HIV diagnosis.

**Mean Years from HIV Diagnosis (to AIDS Diagnosis):** Mean number of years from initial HIV diagnosis to initial AIDS diagnosis for cases with a reported AIDS diagnosis.

Median: The measure of central location which divides a set of data into two equal parts.

**Median Count (First CD4):** Median CD4 count (cells per microliter) of the first CD4 test result reported within 12 months following initial HIV diagnosis.

**Median Count (Recent CD4):** Median CD4 count (cells per microliter) of the most recent CD4 test result measured in the specified year, reported through 6/30/2017.

**Median Unsuppressed (Viral Load):** Median unsuppressed viral load (copies per milliliter) among adult/adolescent living HIV cases with a most recent viral load test result measured in the specified year of 200 copies per milliliter or greater, reported through 6/30/2017.

**Percent Change:** The extent to which a county gained or lost HIV/AIDS cases relative to the number of cases diagnosed in the county.

**Percent Late HIV Diagnosis (for AIDS diagnoses):** Percent of adult/adolescent reported AIDS diagnoses with an initial HIV diagnosis less than or equal to 12 months prior to their initial AIDS diagnosis.

**Percent Late HIV Diagnosis (for HIV diagnoses):** Percent of adult/adolescent reported HIV diagnoses with an initial AIDS diagnosis less than or equal to 12 months after their initial HIV diagnosis.

**Percent Linked to Care:** Percent of adult/adolescent reported HIV diagnoses with a CD4 or viral load test performed less than or equal to 3 months after their initial HIV diagnosis.

**Percent Suppressed (Viral Load):** Percent of adult/adolescent total living HIV cases with a most recent viral load measured in the specified year of less than 200 copies per milliliter reported through 6/30/2017.

**Population Age 13+:** Population age 13 years or older, estimate for 7/1/2016.

**Rate:** A proportion used to represent risk for disease within a given population. It is calculated by dividing the number of diagnoses by the number of persons at risk (population estimate).

Ratio (1 in X): Number of people for every 1 living HIV case in the population, or 1 living HIV case in every X number of people.

Recent CD4 Test Result: The most recent CD4 test result measured in the specified year, reported through 6/30/2017.

**Recent Viral Load Test Result:** The most recent viral load test result measured in the specified year, reported through 6/30/2017.

#### **MDH Non-Discrimination Statement**

The Maryland Department of Health (MDH) complies with applicable Federal civil right laws and does not discriminate on the basis of race, color, national origin, age, disability in its health programs and activities.

#### **English**

Help is available in your language: 410-767-5227 (TTY: 1-800-735-2258). These services are available for free.

#### Español/Spanish

Hay ayuda disponible en su idioma: 410-767-5227 (TTY: 1-800-735-2258). Estos servicios están disponibles gratis.

#### 中文/Chinese

用您的语言为您提供帮助: 410-767-5227 (TTY: 1-800-735-2258). 这些服务都是免费的

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## Section II - Adult/Adolescent Cases by Jurisdiction

Table 1 – Adult/Adolescent HIV Diagnoses during 1/01/2016-12/31/2016, First CD4 Test Result, Percent Linked to Care, and Percent Late Diagnosis, by Jurisdiction, Reported through 6/30/2017

JURISDICTION				Adult/A	Adolescent I	Reported HI	V Diagnose	s	
OF RESIDENCE	Population		0/ 04		First	CD4 Test R	esult	0/ 1 : 1	% Late
AT HIV	Age 13+	No.	% of Total	Rate	No. with	% with	Median	% Linked to Care	HIV
DIAGNOSIS			Total		Test	Test	Count		Diagnosis
Allegany	63,216	2	0.2%	3.2	***	***	***	***	***
Anne Arundel	476,307	46	4.1%	9.7	39	84.8%	259	84.8%	37.0%
Baltimore City	518,161	251	22.5%	48.4	217	86.5%	433	90.0%	21.9%
Baltimore	701,795	165	14.8%	23.5	140	84.8%	359	92.7%	25.5%
Calvert	76,619	7	0.6%	9.1	6	85.7%	490	85.7%	14.3%
Caroline	27,333	2	0.2%	7.3	***	***	***	***	***
Carroll	142,910	3	0.3%	2.1	***	***	***	***	***
Cecil	86,182	3	0.3%	3.5	***	***	***	***	***
Charles	131,050	27	2.4%	20.6	25	92.6%	310	88.9%	33.3%
Dorchester	27,280	10	0.9%	36.7	7	70.0%	169	100.0%	50.0%
Frederick	206,845	17	1.5%	8.2	16	94.1%	409	94.1%	11.8%
Garrett	25,600	0	0.0%	0.0	0	0.0%		0.0%	0.0%
Harford	211,682	23	2.1%	10.9	18	78.3%	123	82.6%	43.5%
Howard	262,960	27	2.4%	10.3	22	81.5%	224	85.2%	25.9%
Kent	17,439	1	0.1%	5.7	***	***	***	***	***
Montgomery	868,044	179	16.0%	20.6	157	87.7%	356	87.2%	24.6%
Prince George's	757,629	293	26.2%	38.7	255	87.0%	385	86.3%	25.3%
Queen Anne's	41,644	2	0.2%	4.8	***	***	***	***	***
Saint Mary's	92,866	4	0.4%	4.3	***	***	***	***	***
Somerset	22,676	6	0.5%	26.5	6	100.0%	502	100.0%	33.3%
Talbot	32,436	1	0.1%	3.1	***	***	***	***	***
Washington	126,707	6	0.5%	4.7	6	100.0%	288	100.0%	33.3%
Wicomico	86,374	14	1.3%	16.2	13	92.9%	419	92.9%	14.3%
Worcester	45,116	3	0.3%	6.6	***	***	***	***	***
Corrections		26	2.3%		23	88.5%	441	88.5%	15.4%
TOTAL	5,048,872	1,118	100.0%	22.1	969	86.7%	374	88.6%	25.2%

<sup>\*\*\*</sup> Data withheld due to low population counts and/or case counts

Adult/Adolescent Reported HIV Diagnoses: Reported HIV diagnoses, age 13 years or older at HIV diagnosis, with an initial HIV diagnosis during the specified year.

Jurisdiction of Residence at HIV Diagnosis: Jurisdiction of residence at time of initial HIV diagnosis.

**Population Age 13+:** Population age 13 years or older, estimate for 7/1/2016.

**Rate:** A proportion used to represent risk for disease within a given population. It is calculated by dividing the number of diagnoses by the number of persons at risk (population estimate).

First CD4 Test Result: First reported CD4 test result obtained within 12 months following initial HIV diagnosis.

Median Count (First CD4): Median CD4 count (cells per microliter) of the first CD4 test result reported within 12 months following initial HIV diagnosis.

**Percent Linked to Care:** Percent of adult/adolescent reported HIV diagnoses with a CD4 or viral load test performed less than or equal to 3 months after their initial HIV diagnosis.

**Percent Late HIV Diagnosis (for HIV diagnoses):** Percent of adult/adolescent reported HIV diagnoses with an initial AIDS diagnosis less than or equal to 12 months after their initial HIV diagnosis.

Table 2 – Adult/Adolescent AIDS Diagnoses during 1/01/2016-12/31/2016, Mean Years from HIV Diagnosis and Percent Late HIV Diagnosis, by Jurisdiction, Reported through 6/30/2017

JURISDICTION			Adult/Adolesc	ent Reported AID	OS Diagnoses	
OF RESIDENCE AT AIDS DIAGNOSIS	Population Age 13+	No.	% of Total	Rate	Mean Years from HIV Diagnosis	% Late HIV Diagnosis
Allegany	63,216	3	0.5%	4.7	***	***
Anne Arundel	476,307	28	4.8%	5.9	3.9	57.1%
Baltimore City	518,161	157	26.7%	30.3	6.5	30.6%
Baltimore	701,795	84	14.3%	12.0	4.6	50.0%
Calvert	76,619	2	0.3%	2.6	***	***
Caroline	27,333	0	0.0%	0.0		0.0%
Carroll	142,910	2	0.3%	1.4	***	***
Cecil	86,182	4	0.7%	4.6	***	***
Charles	131,050	17	2.9%	13.0	2.6	64.7%
Dorchester	27,280	6	1.0%	22.0	2.2	83.3%
Frederick	206,845	4	0.7%	1.9	***	***
Garrett	25,600	0	0.0%	0.0		0.0%
Harford	211,682	15	2.5%	7.1	1.8	66.7%
Howard	262,960	11	1.9%	4.2	2.2	45.5%
Kent	17,439	1	0.2%	5.7	***	***
Montgomery	868,044	76	12.9%	8.8	2.9	59.2%
Prince George's	757,629	149	25.3%	19.7	4.3	48.3%
Queen Anne's	41,644	3	0.5%	7.2	***	***
Saint Mary's	92,866	3	0.5%	3.2	***	***
Somerset	22,676	2	0.3%	8.8	***	***
Talbot	32,436	1	0.2%	3.1	***	***
Washington	126,707	6	1.0%	4.7	4.1	50.0%
Wicomico	86,374	5	0.8%	5.8	2.2	60.0%
Worcester	45,116	0	0.0%	0.0		0.0%
Corrections		10	1.7%		1.7	60.0%
TOTAL	5,048,872	589	100.0%	11.7	4.5	47.7%

<sup>\*\*\*</sup> Data withheld due to low population counts and/or case counts

**Adult/Adolescent Reported AIDS Diagnoses:** Reported HIV diagnoses, age 13 years or older at HIV diagnosis, with an initial AIDS diagnosis during the specified year.

Jurisdiction of Residence at AIDS Diagnosis: Jurisdiction of residence at time of initial AIDS diagnosis.

Population Age 13+: Population age 13 years or older, estimate for 7/1/2016.

**Rate:** A proportion used to represent risk for disease within a given population. It is calculated by dividing the number of diagnoses by the number of persons at risk (population estimate).

Mean Years from HIV Diagnosis (to AIDS Diagnosis): Mean number of years from initial HIV diagnosis to initial AIDS diagnosis for cases with a reported AIDS diagnosis.

**Percent Late HIV Diagnosis (for AIDS diagnoses):** Percent of adult/adolescent reported AIDS diagnoses with an initial HIV diagnosis less than or equal to 12 months prior to their initial AIDS diagnosis.

Table 3 – Adult/Adolescent HIV Cases Alive on 12/31/2016, by Jurisdiction of Current Residence, Reported through 6/30/2017

JURISDICTION OF CURRENT	Population Age 13+  Adult/Adolescent Living HIV Cases without AIDS		Adult/Adolescent Living HIV Cases with AIDS			Adult/Adolescent Total Living HIV Cases					
RESIDENCE	Age 10+	No.	% of Total	Rate	No.	% of Total	Rate	No.	% of Total	Rate	Ratio (1 in X)
Allegany	63,216	40	0.3%	63.3	55	0.3%	87.0	95	0.3%	150.3	665
Anne Arundel	476,307	583	4.3%	122.4	659	4.2%	138.4	1,242	4.2%	260.8	383
Baltimore City	518,161	4,108	30.6%	792.8	5,708	36.0%	1,101.6	9,816	33.5%	1,894.4	52
Baltimore	701,795	1,426	10.6%	203.2	1,682	10.6%	239.7	3,108	10.6%	442.9	225
Calvert	76,619	60	0.4%	78.3	63	0.4%	82.2	123	0.4%	160.5	622
Caroline	27,333	31	0.2%	113.4	43	0.3%	157.3	74	0.3%	270.7	369
Carroll	142,910	56	0.4%	39.2	47	0.3%	32.9	103	0.4%	72.1	1,387
Cecil	86,182	54	0.4%	62.7	73	0.5%	84.7	127	0.4%	147.4	678
Charles	131,050	246	1.8%	187.7	243	1.5%	185.4	489	1.7%	373.1	267
Dorchester	27,280	44	0.3%	161.3	85	0.5%	311.6	129	0.4%	472.9	211
Frederick	206,845	191	1.4%	92.3	177	1.1%	85.6	368	1.3%	177.9	562
Garrett	25,600	7	0.1%	27.3	4	0.0%	15.6	11	0.0%	43.0	2,327
Harford	211,682	188	1.4%	88.8	249	1.6%	117.6	437	1.5%	206.4	484
Howard	262,960	289	2.2%	109.9	269	1.7%	102.3	558	1.9%	212.2	471
Kent	17,439	7	0.1%	40.1	25	0.2%	143.4	32	0.1%	183.5	544
Montgomery	868,044	1,616	12.0%	186.2	1,576	10.0%	181.6	3,192	10.9%	367.7	271
Prince George's	757,629	3,541	26.4%	467.4	3,565	22.5%	470.5	7,106	24.3%	937.9	106
Queen Anne's	41,644	19	0.1%	45.6	31	0.2%	74.4	50	0.2%	120.1	832
Saint Mary's	92,866	70	0.5%	75.4	83	0.5%	89.4	153	0.5%	164.8	606
Somerset	22,676	28	0.2%	123.5	38	0.2%	167.6	66	0.2%	291.1	343
Talbot	32,436	26	0.2%	80.2	44	0.3%	135.7	70	0.2%	215.8	463
Washington	126,707	142	1.1%	112.1	190	1.2%	150.0	332	1.1%	262.0	381
Wicomico	86,374	98	0.7%	113.5	134	0.8%	155.1	232	0.8%	268.6	372
Worcester	45,116	34	0.3%	75.4	51	0.3%	113.0	85	0.3%	188.4	530
Corrections		391	2.9%		648	4.1%		1,039	3.6%		
TOTAL	5,048,872	13,295	100.0%	263.3	15,742	100.0%	311.8	29,037	100.0%	575.1	173

**Jurisdiction of Current Residence:** Jurisdiction of residence from the most recent laboratory test or case report between 1/1/2009-12/31/2016.

**Population Age 13+:** Population greater than or equal to 13 years old, estimate for 7/1/2016.

**Adult/Adolescent Living HIV Cases without AIDS:** Reported HIV diagnoses, age 13 years or older at HIV diagnosis, without an AIDS diagnosis, and not reported to have died as of 6/30/2017.

**Adult/Adolescent Living HIV Cases with AIDS:** Reported HIV diagnoses, age 13 years or older at HIV diagnosis, with an AIDS diagnosis, and not reported to have died as of 6/30/2017.

**Adult/Adolescent Total Living HIV Cases:** Reported HIV diagnoses, age 13 years or older at HIV diagnosis, with or without an AIDS diagnosis, and not reported to have died as of 6/30/2017.

**Rate:** A proportion used to represent risk for disease within a given population. It is calculated by dividing the number of diagnoses by the number of persons at risk (population estimate).

Ratio (1 in X): Number of people for every 1 living HIV case in the population, or 1 living HIV case in every X number of people.

Table 3A – Adult/Adolescent HIV Cases Alive on 12/31/2016, by Jurisdiction of Residence at Diagnoses and Current Jurisdiction of Residence, Reported through 6/30/2017

JURISDICTION		Adult/Adolescent Living HIV Cases with or without AIDS Diagnosis								
OF	Population	Res	sidence at H	IIV Diagnos	is		Current R	esidence		%
RESIDENCE	Age 13+	No.	% of Total	Rate	Ratio	No.	% of Total	Rate	Ratio	Change
Allegany	63,216	71	0.2%	112.3	890	95	0.3%	150.3	665	33.8%
Anne Arundel	476,307	1,248	3.9%	262.0	381	1,242	4.3%	260.8	383	-0.5%
Baltimore City	518,161	11,904	36.9%	2,297.4	43	9,816	33.8%	1,894.4	52	-17.5%
Baltimore	701,795	3,358	10.4%	478.5	208	3,108	10.7%	442.9	225	-7.4%
Calvert	76,619	102	0.3%	133.1	751	123	0.4%	160.5	622	20.6%
Caroline	27,333	66	0.2%	241.5	414	74	0.3%	270.7	369	12.1%
Carroll	142,910	136	0.4%	95.2	1,050	103	0.4%	72.1	1,387	-24.3%
Cecil	86,182	111	0.3%	128.8	776	127	0.4%	147.4	678	14.4%
Charles	131,050	473	1.5%	360.9	277	489	1.7%	373.1	267	3.4%
Dorchester	27,280	130	0.4%	476.5	209	129	0.4%	472.9	211	-0.8%
Frederick	206,845	337	1.0%	162.9	613	368	1.3%	177.9	562	9.2%
Garrett	25,600	8	0.0%	31.3	3,199	11	0.0%	43.0	2,327	37.5%
Harford	211,682	442	1.4%	208.8	478	437	1.5%	206.4	484	-1.1%
Howard	262,960	523	1.6%	198.9	502	558	1.9%	212.2	471	6.7%
Kent	17,439	36	0.1%	206.4	484	32	0.1%	183.5	544	-11.1%
Montgomery	868,044	4,049	12.6%	466.5	214	3,192	11.0%	367.7	271	-21.2%
Prince George's	757,629	7,018	21.8%	926.3	107	7,106	24.5%	937.9	106	1.3%
Queen Anne's	41,644	50	0.2%	120.1	832	50	0.2%	120.1	832	0.0%
Saint Mary's	92,866	130	0.4%	140.0	714	153	0.5%	164.8	606	17.7%
Somerset	22,676	57	0.2%	251.4	397	66	0.2%	291.1	343	15.8%
Talbot	32,436	59	0.2%	181.9	549	70	0.2%	215.8	463	18.6%
Washington	126,707	297	0.9%	234.4	426	332	1.1%	262.0	381	11.8%
Wicomico	86,374	222	0.7%	257.0	389	232	0.8%	268.6	372	4.5%
Worcester	45,116	77	0.2%	170.7	585	85	0.3%	188.4	530	10.4%
Corrections		1,331	4.1%		-	1,039	3.6%	-		-21.9%
TOTAL	5,048,872	32,235	100.0%	638.5	156	29,037	100.0%	575.1	173	-9.9%

**Adult/Adolescent Total Living HIV Cases:** Reported HIV diagnoses, age 13 years or older at HIV diagnosis, with or without an AIDS diagnosis, and not reported to have died as of December 31<sup>st</sup> of the specified year.

Jurisdiction of Residence: Jurisdiction of residence at time of initial HIV diagnosis or most recent lab test.

Population Age 13+: Population age 13 years or older, estimate for 7/1/2016.

Residence at HIV Diagnosis: Jurisdiction of residence at time of initial HIV diagnosis.

Current Residence: Jurisdiction of residence from the most recent laboratory test or case report between 1/1/2009-12/31/2016.

**Rate:** A proportion used to represent risk for disease within a given population. It is calculated by dividing the number of diagnoses by the number of persons at risk (population estimate).

Ratio (1 in X): Number of people for every 1 living HIV case in the population, or 1 living HIV case in every X number of people.

Percent Change: The extent to which a county gained or lost HIV/AIDS cases relative to the number of cases diagnosed in the county.

For additional information regarding current residence, please contact the Center for HIV Surveillance, Epidemiology and Evaluation in the Maryland Department of Health at 410-767-5227.

Table 4 – CD4 Test Results for Adult/Adolescent HIV Cases Alive on 12/31/2016, by Jurisdiction, Reported through 6/30/2017

IUDIODIOTION OF	Adult/Adolescent Total Living HIV Cases											
JURISDICTION OF CURRENT				Rece	nt CD4 Test R	esult						
RESIDENCE	No.	No. with Test	% with Test	Median Count	<200	200-349	350-499	500+				
Allegany	95	81	85.3%	653	3.7%	8.6%	18.5%	69.1%				
Anne Arundel	1,242	805	64.8%	580	11.1%	12.3%	15.4%	61.2%				
Baltimore City	9,816	6,549	66.7%	538	12.9%	14.8%	17.4%	55.0%				
Baltimore	3,108	1,980	63.7%	578	10.6%	13.4%	16.8%	59.2%				
Calvert	123	96	78.0%	688	9.4%	9.4%	15.6%	65.6%				
Caroline	74	40	54.1%	673	5.0%	12.5%	7.5%	75.0%				
Carroll	103	73	70.9%	652	5.5%	17.8%	17.8%	58.9%				
Cecil	127	82	64.6%	570	6.1%	13.4%	20.7%	59.8%				
Charles	489	334	68.3%	563	12.9%	14.1%	17.1%	56.0%				
Dorchester	129	96	74.4%	546	11.5%	17.7%	16.7%	54.2%				
Frederick	368	251	68.2%	600	3.2%	14.3%	14.3%	68.1%				
Garrett	11	8	72.7%	673	0.0%	0.0%	25.0%	75.0%				
Harford	437	284	65.0%	544	13.0%	15.5%	15.8%	55.6%				
Howard	558	372	66.7%	594	12.4%	11.3%	16.1%	60.2%				
Kent	32	25	78.1%	571	4.0%	16.0%	24.0%	56.0%				
Montgomery	3,192	2,135	66.9%	562	7.8%	14.4%	20.0%	57.8%				
Prince George's	7,106	4,886	68.8%	552	10.7%	13.5%	19.0%	56.8%				
Queen Anne's	50	39	78.0%	635	7.7%	12.8%	15.4%	64.1%				
Saint Mary's	153	110	71.9%	510	10.0%	19.1%	18.2%	52.7%				
Somerset	66	45	68.2%	603	8.9%	11.1%	6.7%	73.3%				
Talbot	70	52	74.3%	479	15.4%	19.2%	23.1%	42.3%				
Washington	332	246	74.1%	630	10.6%	9.3%	13.0%	67.1%				
Wicomico	232	174	75.0%	492	15.5%	13.8%	21.8%	48.9%				
Worcester	85	71	83.5%	620	8.5%	12.7%	9.9%	69.0%				
Corrections	1,039	709	68.2%	491	18.6%	15.8%	16.4%	49.2%				
TOTAL	29,037	19,543	67.3%	555	11.3%	14.1%	17.7%	56.9%				

**Adult/Adolescent Total Living HIV Cases:** Reported HIV diagnoses, age 13 years or older at HIV diagnosis, with or without an AIDS diagnosis, and not reported to have died as of 6/30/2017.

**Jurisdiction of Current Residence:** Jurisdiction of residence from the most recent laboratory test or case report between 1/1/2009-12/31/2016.

Recent CD4 Test Result: The most recent CD4 test result measured in the specified year, reported through 6/30/2017.

Median Count (Recent CD4): Median CD4 count (cells per microliter) of the most recent CD4 test result measured in the specified year, reported through 6/30/2017.

CD4 Result Distribution (<200, 200-349, 350-499, 500+): Percent of cases with a CD4 test distributed by their CD4 count results (cells per microliter).

Table 5 – Viral Load Test Results for Adult/Adolescent HIV Cases Alive on 12/31/2016, by Jurisdiction, Reported through 6/30/2017

	Adult/Adolescent Total Living HIV Cases									
JURISDICTION OF		Recent Viral Load Test Result								
CURRENT RESIDENCE	No.	No. with Test	% with Test	% Suppressed	Median Unsuppressed					
Allegany	95	78	82.1%	88.5%	7,465					
Anne Arundel	1,242	772	62.2%	79.4%	9,914					
Baltimore City	9,816	6,016	61.3%	73.8%	9,223					
Baltimore	3,108	1,840	59.2%	79.6%	11,346					
Calvert	123	99	80.5%	87.9%	12,646					
Caroline	74	43	58.1%	81.4%	2,288					
Carroll	103	69	67.0%	88.4%	22,430					
Cecil	127	80	63.0%	82.5%	12,134					
Charles	489	348	71.2%	77.9%	11,607					
Dorchester	129	102	79.1%	84.3%	14,520					
Frederick	368	255	69.3%	91.4%	26,470					
Garrett	11	8	72.7%	87.5%	7,200					
Harford	437	262	60.0%	87.0%	20,543					
Howard	558	361	64.7%	78.7%	17,500					
Kent	32	26	81.3%	100.0%						
Montgomery	3,192	2,133	66.8%	88.4%	9,430					
Prince George's	7,106	4,900	69.0%	82.3%	10,600					
Queen Anne's	50	38	76.0%	84.2%	14,642					
Saint Mary's	153	106	69.3%	82.1%	26,400					
Somerset	66	45	68.2%	82.2%	3,585					
Talbot	70	50	71.4%	88.0%	8,301					
Washington	332	244	73.5%	82.4%	2,871					
Wicomico	232	169	72.8%	75.1%	22,513					
Worcester	85	71	83.5%	90.1%	28,820					
Corrections	1,039	682	65.6%	67.3%	15,556					
TOTAL	29,037	18,797	64.7%	79.5%	10,000					

**Adult/Adolescent Total Living HIV Cases:** Reported HIV diagnoses, age 13 years or older at HIV diagnosis, with or without an AIDS diagnosis, and not reported to have died as of 6/30/2017.

**Jurisdiction of Current Residence:** Jurisdiction of residence from the most recent laboratory test or case report between 1/1/2009-12/31/2016.

**Recent Viral Load Test Result:** The most recent viral load test result measured in the specified year, reported through 6/30/2017. **Percent Suppressed (Viral Load):** Percent of adult/adolescent total living HIV cases with a most recent viral load measured in the specified year of less than 200 copies per milliliter reported through 6/30/2017.

**Median Unsuppressed (Viral Load):** Median unsuppressed viral load (copies per milliliter) among adult/adolescent living HIV cases with a most recent viral load test result measured in the specified year of 200 copies per milliliter or greater, reported through 6/30/2017.